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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/636,081

08/06/2003

Pramod K. Gupta

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EXAMINER

PARA, ANNETTE H

ART UNIT

PAPER NUMBER

1661

NOTIFICATION DATE

DELIVERY MODE

04/27/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@weyerhaeuser.com

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/636,081</p>	<p><b>Applicant(s)</b> GUPTA ET AL.</p>	
	<p><b>Examiner</b> ANNETTE H. PARA</p>	<p><b>Art Unit</b> 1661</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 03/09/2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☒ Other: See Continuation Sheet.

/Annette H. Para/  
Primary Examiner, Art Unit 1661

Continuation of 13. Other: Response to arguments.

Applicants argue that the Examiner has mischaracterized the claimed invention as being directed to a method for producing conifer somatic embryos. Rather, it is noted that the pending claims are directed to a method of producing a synchronized population of pine somatic embryos.

This argument is not found persuasive because a mere statement of purpose or intended use in the preamble of a claim need not be considered in finding anticipation *Divertech Corp. V. Century Steps Inc.* 7USPQ2d 1315 (Fed Cir.1988).

Applicants argue that Pullman et al. does not teach or suggest the claimed invention for at least the following reasons. Contrary to the Examiner's assertion, Pullman et al. does not disclose the step of singulation for Loblolly pine. The Examiner characterizes Pullman et al. as disclosing transferring embryos to a singulation medium comprising gibberelin and/or abscisic acid at concentrations of 0.05 and 15g/L (with reference to Col. 13, lines 40-60) and comprising also activated charcoal (Col. 13, lines 50-54) for at least 3 weeks (Col. 15, lines 23-26). However, it is noted that the passages relied upon by the Examiner describe the singulation stage used to culture Douglas fir somatic embryos. There is no teaching or suggestion in Pullman et al. to culture pine embryos in the multistep process as recited in Claim 1, with a first incubation on maintenance media, followed by incubation in synchronization medium, followed by incubation in development media. Rather, Pullman et al. actually teaches away from the use of the singulation step during embryo culture for species other than Douglas fir, such as pine, by stating, "Douglas-fir generally requires an intermediate step between the late proembryo growth stage and the final cotyledonary embryo development stage which is not necessary for other species. The proembryos tend to form in tight clumps or clusters which must first be singulated before going to the development stage." Pullman et al., at Col. 8, lines 18-23 (emphasis added). Consistent with the teaching in Pullman et al. regarding the need for singulation for culturing embryos from Douglas fir and not from other species, Examples 1, 2, 3, 4, 5, 6, and 7 of Pullman et al., which are all directed to methods of growth of Douglas fir embryos, all include the singulation step (e.g., see Col. 14, line 4, to Col. 20, line 40); whereas the two examples in Pullman et al. directed to methods for culturing embryos from species other than Douglas-fir (e.g., Norway spruce in Examples 8 and 9) both describe plating from a maintenance medium directly onto solid development medium, with no singulation step. See Pullman et al. at Col. 20, line 41, to Col. 23, line 30.

These arguments are not found persuasive because in contrast to applicants assertions the teaching of Pullman et al. does not constitute a teaching away from a broader disclosure or nonpreferred embodiments. See *In re Susi* USPQ 423 (CCPA 1971). A known or obvious method is not patentable simply because it has been described as somewhat inferior to some other method for the same use. *In re Gurley* 31 USPQ2d 1130 1132 (Fed Cir 1994) See MPEP 2123. A Prior art reference may be considered to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference or would be led in a direction divergent from the path that was taken by the applicant". *In re Gurley* 27F 3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). Pullman et al. state Douglas-fir generally requires an intermediate step between the late proembryo growth stage and the final cotyledonary embryo development stage which is not necessary for other species. The proembryos tend to form in tight clumps or clusters which must first be singulated before going to the development stage." But Pullman et al. also state "Significantly, species other than Douglas Fir can be advantageously cultured by beginning early cotyledonary embryo development in a series of media similar to those used for Douglas-fir singulation" (column 8, lines 49-52). Thus Pullman et al. do not teach away from the use of the singulation step for pine embryos.

Applicants then argue that Pullman et al. does not remotely teach, suggest, or provide any motivation to produce a synthesized population of cotyledonary pine somatic embryos by incubation in a synchronization medium prior to incubation in development media, wherein at least 50% of the pre-cotyledonary pine somatic embryos in the synchronized population are at the same developmental stage prior to transfer to a development medium, as recited in Claim 1.

As described in the instant specification:

Cleavage polyembryony (embryonal suspensor mass proliferation) continues in cultures after plating onto development medium, and new embryos are beginning to develop even after eight to ten weeks of culture on development medium. Due to this continuing cleavage, embryos are not uniform in stage, shape, size, or quality within a single plate. This lack of uniformity detrimentally affects the efficiency of somatic cloning of conifers. The present invention addresses the problem of unsynchronized development of conifer embryogenic cells, including ESMs, by culturing the embryonic cells in, or on, a synchronization medium that causes the majority of embryos in a population of conifer somatic embryos to progress through successive developmental stages together to yield a synchronized population of mature conifer somatic embryos that can be germinated to form conifer plants. [Specification at page 4, lines 18-28.]

There is no disclosure in Pullman et al. regarding synchronization of embryo growth. As noted above, Pullman et al. teaches culturing Douglas fir embryos in singulation medium prior to development medium and teaches away from singulation for other species, such as pine. Rather, as stated in Pullman et al. at Col. 7, lines 12-14, "It should be noted here that Douglas-fir does not experience polyembryony as do most other coniferous species." Therefore, it is demonstrated that the incubation of pine embryos in synchronization media for 0.5 to 5 weeks prior to incubation in a development media as recited in Claim 1 step (b) is an important distinction between the Pullman et al. reference and the present invention.

With regard to the Examiner's response to applicants' previous arguments, it is noted that the Examiner is incorrect in the assertion that Pullman et al. states that adding the singulation step is beneficial for improvement of proembryo quality, with reference to Col. 8, lines 5-14. Rather, as noted above, Pullman et al. actually teaches away from the use of the singulation step during embryo culture for species other than Douglas fir, such as pine, by stating, "Douglas-fir generally requires an intermediate step between the late proembryo growth stage and the final cotyledonary embryo development stage which is not necessary for other species."

With regard to the Examiner's assertion that Pullman et al. teaches that this method can be used for many species, including loblolly pine (with reference to Col. 7, lines 50-60), it is noted that the passage of Pullman referred to by the Examiner describes development

medium. It is noted that the claimed invention is directed to the incubation of pine embryos in synchronization media for 0.5 to 5 weeks prior to incubation in a development media.

The Examiner further asserts that Pullman et al. anticipates the claimed method because Pullman et al. states, "[s]pecies other than Douglas-fir can be advantageously cultured by beginning early cotyledonary embryo development in a series of media similar to those used for Douglas-fir singulation." It is again noted that step (b) of the claimed method is directed to incubation in synchronization media for 0.5 to 5 weeks prior to incubation in a development media.

Accordingly, it is demonstrated that Pullman et al. does not teach or suggest the method of producing a synchronized population of pine somatic embryos, as claimed. Further, Pullman et al. does not even remotely address the unexpected result obtained by the claimed invention. As described in Examples 1 and 2 of the instant specification, the present inventors discovered through experimentation that culturing pine embryos in synchronization medium containing activated charcoal and at least one of abscisic acid and a gibberellin prior to incubation in development media inhibited precocious embryo development and greening, while promoting singulation and synchronization of the cultures, resulting in embryos very uniform in size in comparison to control cultures. See specification at page 19, lines 19-31. Thus, without the benefit of applicants' disclosure, one of skill in the art would not be motivated by the teachings of Pullman et al., or by the general knowledge in the art, to arrive at the claimed invention.

Accordingly, applicants respectfully submit that the claimed invention is clearly patentable over Pullman et al.

These arguments are not persuasive because the prior art of Pullman et al. reasonably allow the conclusion sought by the examiner e.g. similar methods of preparation are presumed to inherently possess the same properties. Pullman et al. is silent about the obtention of synchronized population of pine somatic embryos. A reference which is silent about a claimed invention's feature is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Oelrich, 212 USPQ 323 (CCPA 1981). Pullman et al. clearly anticipate the claimed application.